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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,267	09/26/2001	Haruo Hyodo	10417-101001	8383

26211 7590 12/20/2002

FISH & RICHARDSON P.C.
45 ROCKEFELLER PLAZA, SUITE 2800
NEW YORK, NY 10111

EXAMINER

SOWARD, IDA M

ART UNIT	PAPER NUMBER
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2822

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/963,267

Applicant(s)

HYODO ET AL.

Examiner

Ida M Soward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

This Office Action is in response to Applicants' amendment filed 06/3/02.

Drawings

The objection to Figures 9A and 9B has been withdrawn due to the amendment filed.

The objection to the drawings as failing to comply with 37 CFR 1.84(p)(5) has been withdrawn due to the amendment filed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 9A-9B in view of Ozimek et al. (5,382,310) and Sasano (US 6,313,525 B1).

Prior Art Figures 9A-9B teach a semiconductor device comprising: a supporting substrate **1** made of insulating material; three conductive patterns provided on a surface of the supporting substrate; an external connecting terminal **2** electrically connected to

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the conductive patterns; a semiconductor circuit element **5**; and a ceramic plate **3** that covers the circuit element and that forms a hollow airtight portion **7** between the supporting substrate and the ceramic plate. However, Prior Art Figures 9A-9B fail to teach a glass plate, an external connecting terminal provided on a back surface of the supporting substrate, and an adhesive resin applied over an entire surface of the glass plate. Ozimek et al. teach an adhesive **26** applied over an entire surface of the glass plate **28** (Figure 1, col. 3, lines 9-31). Sasano teaches a glass plate **9** with an adhesive resin **10** applied over a surface of the glass plate and an external connecting terminal **6** provided on a back surface of the supporting substrate (Figure 1, column 6, lines 6-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device structure of Prior Art Figures 9A-9B with the adhesive of Ozimek et al. and the glass plate, adhesive resin and external connection of Sasano to maintain air tightness.

Claims 2 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 9A-9B, Ozimek et al. (5,382,310) and Sasano (US 6,313,525 B1) as applied to claim 1 above, and further in view of Toshiba KK [Toke] (JP07225391A).

Prior Art Figures 9A-9B, Ozimek et al. and Sasano teach all mentioned in the rejection above. Prior Art Figures 9A-9B further teach an insulating substrate **1** (Figure 1). Sasano further teach a wall surrounding the circuit member **7-8**, wherein the transparent plate **9** adhered on the wall over the circuit member **7-8** to form an airtight cavity between the substrate **1** and the transparent plate **9** (Figure 1) and a

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semiconductor chip 7 disposed over the conductive pattern which is disposed over the substrate. However, Prior Art Figures 9A-9B, Ozimek et al. and Sasano fail to teach a light-shielding adhesive resin. Toshiba KK [Toke] teaches a light-shielding adhesive resin. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device structure of Prior Art Figures 9A-9B, the adhesive of Ozimek et al. and the glass plate, adhesive and external connection of Sasano with the light-shielding adhesive resin of Toshiba KK [Toke] to eliminate undesirable device operation caused by unwanted light.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 9A-9B, Ozimek et al. (5,382,310), Sasano (US 6,313,525 B1) and Toshiba KK [Toke] (JP07225391A) as applied to claims 2 and 8-10 above, and further in view of Hyoudo et al. (US 6,365,433 B1).

Prior Art Figures 9A-9B, Ozimek et al., Sasano and Toshiba KK [Toke] teach all mentioned in the rejection above. However, Prior Art Figures 9A-9B, Ozimek et al., Sasano and Toshiba KK [Toke] fail to teach a fuse element. Hyoudo et al. teach a fuse element (Figure 3A, col. 4, lines 35-48). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device structure of Prior Art Figures 9A-9B, the adhesive of Ozimek et al., the glass plate, adhesive and external connection of Sasano and the light-shielding adhesive resin of Toshiba KK [Toke] with the fuse element of Hyoudo et al. to provide a overcurrent protection element.

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Response to Arguments

Applicant's arguments with respect to claims 1-3 and 8-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M Soward whose telephone number is 703-305-3308. The examiner can normally be reached on Monday - Thursday, 6:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 703-308-4905. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ims

December 13, 2002


AMIR ZARABIAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800